REMARKS

The claims in this application have been amended, solely for the purpose of complying with U.S. claiming conventions.

Respectfully submitted,

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Marked-up Version of Amended Claims
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)

CLAIMS

1. A method of improving tolerance to a xenograft comprising[;] : immunising a mammal with an immunogen comprising at least one T-cell epitope and at least one porcine polypeptide B-cell epitope, [characterised in that] wherein said B-cell epitope is [derived from at least one porcine polypeptide involved in] capable of mediating [the] rejection of said xenograft.

2. A method according to Claim 1, [characterised in that] wherein said B-cell epitope is a peptide derived from at least one porcine polypeptide selected from[;] the group of CD40[;] , CD80[;] , CD86 [or] and VCAM.

3. A method according to Claim 1, [or 2 characterised in that] wherein said peptide is selected from at least one peptide represented in Figure 22.

4. A method according to Claim1, [or 2 characterised in that] wherein said peptide is selected from at least one peptide represented in Figure 24.

5. A method according to Claim1, [or 2 characterised in that] wherein said peptide is selected from at least one peptide represented in Figure 26.

6. A method according to [Claims 1 - 5 characterised in that] Claim 1, wherein said T-cell epitope [is derived from] comprises a tetanus toxoid polypeptide.

7. A composition comprising an immunogen characterised in that said immunogen [has] comprises at least one B-cell epitope and at least one T-cell epitope wherein said B-cell epitope [is derived from at least one] comprises a porcine [polypeptide] epitope involved in mediating xenograft rejection.

8. A composition according to Claim 7, [characterised in that] wherein said porcine epitope comprises a porcine polypeptide [is] expressed by vascular endothelial cells of said xenograft.

9. A composition according to [Claims 7 or 8 characterised in that] Claim 7, wherein said B-cell epitope is [derived from at least one porcine polypeptide] selected from[;] the group of CD40[;] , CD86[;] , CD80[;] and VCAM.

10. A composition according to Claim 9, [characterised in that] wherein said B-cell epitope [is selected from] comprises at least one peptide as represented in Figure 22.

11. A composition according to Claim 9, [characterised in that] wherein said B-cell epitope [is selected from] comprises at least one peptide as represented in Figure 24.

12. A composition according to Claim 9, [characterised in that] wherein said B-cell epitope [is selected from] comprises at least one peptide as represented in Figure 26.

13. A composition according to [Claims 9 or 12 characterised in that] Claim 9, wherein said B-cell epitope [is derived from the] comprises an extracellular domain of CD86.

14. A composition according to [Claims 7 - 13 characterised in that] Claim 7, wherein said T-cell epitope [is derived from] comprises a tetanus toxoid epitope.

15. A composition according to [Claims 7 - 14 characterised in that] Claim 7, wherein said composition further comprises a carrier capable of enhancing the immune response to said immunogen.

16. An antibody, or the effective part thereof, [characterised in that] wherein said antibody is capable of distinguishing between porcine polypeptides according to [Claims 7 – 15] Claim 7, and the homologous polypeptides of the mammal receiving said xenograft.

17. An antibody according to Claim 16, [characterised in that] wherein said antibody is monoclonal.

18. An antibody according to [Claims 16 or 17 characterised in that] Claim 16, wherein said antibody is a modified [with] antibody comprising at least one detectable label.

19. A method to monitor [the] an immune status of a mammalian recipient of a xenograft comprising:

iii) removing a sample from a xenograft recipient to be tested;

iv) contacting said sample to the antibody according to [Claims 16 – 18] Claim 16; and

iii) monitoring [the] expression of [the] a porcine polypeptide [according to Claims 4 –8] shown in Figures 22, 24, or 26.

20. A method [to treat] of treating a mammal prior to receiving a xenograft, comprising:

i) immunising a mammal with an immunogenic composition according to [Claims 7 – 15] Claim 7;

ii) assessing [the] an immune status of said mammal to said immunogenic composition;

iii) [transplantation of] transplanting said xenograft tissue/organ into a recipient mammal; and

iv) monitoring [the] a rejection response to said xenograft.

21. A method according to Claim 20, [characterised in that] wherein said xenograft is of porcine origin and said mammal is human.

22. A method according to Claim 20, [or 21 characterised in that] wherein said xenograft [is] comprises at least one vascularised graft and/or immunogenic porcine cell/tissue.

23. A method according to Claim 20, [characterised in that] wherein said xenograft [is] comprises pancreatic islets.

24. (New) The method Claim 1, wherein said B-cell epitope has less than 75% sequence identity to a corresponding region of an equivalent human polypeptide.

25. (New) The method of Claim 7, wherein said B-cell epitope has less than 75% sequence identity to a corresponding region of an equivalent human polypeptide.

26. (New) The method of Claim 16, wherein said B-cell epitope has less than 75% sequence identity to a corresponding region of an equivalent human polypeptide.